

a database of 286 patients receiving EUS-FNA and the DNA test. Patients who had pancreatic cysts and were not indicated for surgery by cytology alone were divided into the four possible CEA-result groups using criteria that specifies <5 is negative, and >192 positive. The DNA test was considered positive if any of three components (DNA quantity, K-ras mutation, and multiple allelic imbalance mutations) were positive. **RESULTS:** Based on the database, 38.5% had insufficient fluid for CEA. Of CEAs, 50% were positive, 21.6% negative, and 28.4% indeterminate. Probabilities of a positive DNA test were 6.9% in patients with negative, 36.8% with indeterminate, and 55.2% with positive CEAs, and 35.7% in patients with insufficient fluid. Including costs of cytology but not the EUS-FNA, costs were \$381, \$1575, and \$2642 per patient for the three strategies. Assuming the DNA is not specific enough for a negative diagnosis, the costs per MPC diagnosis are \$866, \$2716, and \$4128 with 44%, 58%, and 64% being diagnosed. Positive diagnosis results in annual follow-up with potential for surgical resection. **CONCLUSIONS:** Scenarios in which negative DNA tests forego or reduce frequency of follow-up with minimal increase in cancer risk are potentially cost-effective. However, if positive and indeterminate diagnoses are treated similarly, the DNA test cost cannot be justified.

PMD45

ESTIMATING ECONOMIC IMPACT OF ANGIOGENESIS-SPECIFIC IMAGING IN METASTATIC BREAST CANCER

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OBJECTIVES: In the UK, anti-angiogenesis (AA) drugs (e.g. bevacizumab) have not been accepted as good value for money within the general metastatic breast cancer (MBC) population. However, it may benefit some subpopulations within MBC. Angiogenesis-specific imaging tests (A-IT) under development have the potential to offer earlier, accurate determination of response to AA therapies for MBC patients, and lower treatment costs. **METHODS:** A decision-tree-based model was developed to estimate the likely economic impact of A-IT from start of AA therapy through to progression of disease. Key decision nodes were presence/absence of A-IT, sensitivity/specificity (SE/SP) of A-IT, clinician adherence to test results and treat/no treat decision. Key model inputs (and base case values): 1) median time to progression [TTP] for current MBC patients on AA therapies (9.5 months); 2) median TTP for A-IT identified responders (13 months); 3) costs of bevacizumab, one cycle (£3,591); 4) costs of hemorrhaging, per event (£9,681); 5) per patient costs for diagnostic (£3,826); 6) estimated SE/SP of diagnostic – 95%/75%; 7) clinician adherence to test results (75%). **RESULTS:** Based on a hypothetical cohort of MBC patients, base case results indicate that use of A-IT after just one cycle of AA therapy results in savings of £3,570 per patient versus a scenario where A-IT was not used. One-way threshold sensitivity analysis shows A-IT is cost-saving if SP \geq 62% or when clinician adherence is \geq 63%. Results were insensitive to changes in SE. **CONCLUSIONS:** Use of A-IT could allow for cost-effective use of AA therapies in subgroups of MBC patients due to the earlier, more accurate determination of clinical benefit. Further research is required to assess if A-IT allows AA therapy to become acceptably cost-effective treatment for general MBC in the UK.

PMD46

ECONOMIC ANALYSIS OF A PREDICTIVE TEST FOR TAXANE RESPONSE IN EARLY BREAST CANCER PATIENTS IN THE UK

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OBJECTIVES: Patients with high risk early breast cancer (BC) frequently have adjuvant therapy that includes taxane treatment (TAX) with a 28% reduction in risk of relapse (BCIRG 001). TAX is associated with considerable toxicities which impact quality-of-life and only a minority of patients derive benefit from the regimen. Biomarkers to predict TAX-response may improve the equation of treatment/adverse events costs with the benefits and risks to patients. Our objective is to examine the economic impact of adding a predictive TAX test for BC in a UK health care setting. **METHODS:** A predictive model estimated the potential cost offsets of testing a cohort of BC pts with a biomarker to guide therapy selection vs. no pretesting. The no biomarker test group received 6 cycles of 3 weekly TAC: docetaxel (50mg/m²) doxorubicin (50mg/m²), cyclophosphamide (500mg/m²) (cost £5944 generic prices). In the biomarker tested (cost £606) cohort, only those with biomarker over-expression received TAC. Assuming test predictivity of 70-90%, those found without over-expression (50.3% - 64.7% based upon 71.9% with no improved disease free survival from TAX trial findings, were treated with NICE guideline-recommended FEC-60 X 6 cycles (£2213)). Each group accrued appropriate related therapy, toxicity and biomarker test costs, with all costs taken from published sources. **RESULTS:** At 70-90% predictive, the model estimated £2991-£3846 of TAC therapy costs/patient could be avoided along with £350-£450 of toxicity-related costs with the biomarker. Taking alternative therapies and toxicities into account, potential cost offsets were £2413-£3276. Patients without biomarker over-expression avoided TAC toxicities and associated quality-of-life impacts. **CONCLUSIONS:** Applying a biomarker test to identify women likely to respond to TAX appears to save drug costs and avoid TAX-related toxicities.

PMD47

ECONOMIC EVALUATION OF REDUCED FUTILE 1ST LINE THERAPY IN METASTATIC RENAL CELL CARCINOMA PATIENTS USING EARLY ANGIOGENESIS-SPECIFIC IMAGING

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OBJECTIVES: Approximately 20% of metastatic renal cell carcinoma (mRCC) patients receiving 1st line (1LT) sunitinib experience disease progression (PD) identified by RECIST at 90 days post 1LT initiation. Earlier PD identification would minimize futile 1LT, facilitating a switch to potentially more effective 2nd line therapy. Current research is evaluating biomarkers that identify rapid PD (rPD). This study's goal was to estimate the economic impact of utilizing an angiogenesis-specific imaging (AI) biomarker for early PD identification. **METHODS:** An economic model for mRCC patients receiving 1LT sunitinib from a UK National Health System perspective was developed with a 90 day time horizon. Comparator arm used RECIST monitoring; the intervention arm an AI biomarker. Inputs included: timing of PD assessment (day 14 for AI; day 90 for RECIST); sunitinib costs (£1,569 for 14 days; £6,950 for 90 days); other 1LT costs (£468 for 14 days; £1,861 for 90 days); and rPD rate of 20%. Outcomes included incremental length of futile 1LT and costs for AI vs. RECIST. **RESULTS:** For AI sensitivity of 50%, a 38 day reduction in futile 1LT could be achieved per rPD patient by using AI vs. RECIST (AI sensitivity of 75% or 100% yielded 57 and 76 fewer days). Incremental cost savings reflecting resources that could be freed up for AI utilization across all mRCC patients was £677, £1,016 and £1,355 per patient for AI sensitivity of 50%, 75% and 100%. **CONCLUSIONS:** Prolonged therapy exposes non-responding patients to risks without potential clinical benefit and results in misallocated health care resources which could be directed elsewhere. Results of this study suggest that a diagnostic test enabling early PD identification may reduce futile 1LT and its negative clinical/economic consequences. Further research should evaluate additional benefits of early PD identification, including improved patient quality of life and/or better clinical outcomes of subsequent therapies.

PMD48

STRUCTURED SMBG IN IRANIAN PEOPLE WITH TYPE 2 DIABETES: A COST CONSEQUENCE ANALYSIS

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OBJECTIVES: Self-Monitoring of Blood Glucose (SMBG) is considered as a key factor in management of people with diabetes which is a growing and cost demanding health problem. The purpose of this study was to investigate the effect of comprehensive patient management using structured SMBG on metabolic control as well as its cost consequence analysis. **METHODS:** Sixty subjects were recruited in an observational study for a period of 6 months. They were provided with the ACCU-CHEK 360° View tool to fill in the values of the 7-point blood glucose profiles in three consecutive days during the study on a monthly basis. Changes in metabolic control were assessed by HbA1c and lipid profile measurement at the beginning and at the end of the study. In addition, cost consequence analysis was done considering different level of health care professionals with or without insurance coverage. The Average Cost Effectiveness Ratio (ACER) as well as Cost Benefit Analysis (CBA) were calculated and compared. **RESULTS:** The analysis showed significant reduction in HbA1c during the 6-month period in all subjects (P=0.000). Furthermore, a positive effect was observed on lipid profile. The cost of endocrinologist's visit in private sector was estimated to be 265.76 USD while this figure was 149.15 USD for general practitioner in public sector with insurance coverage. Total complications and mortality cost saving was 154.8 USD. The lowest ACER was calculated for the intervention done by general practitioner in public sector with insurance coverage. **CONCLUSIONS:** Structured SMBG results in significant improvement of glycemic status. Moreover, it is cost beneficial in public sector with insurance coverage. It seems that general practitioner visits with insurance coverage is the most affordable option for people with type 2 diabetes.

PMD49

COST-EFFECTIVENESS OF THE TLC-NOSF DRESSING IN VENOUS LEG ULCERS

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OBJECTIVES: The purpose of this medico-economic study is to estimate cost-effectiveness impact of treating the patients suffering from venous leg ulcers in France. Outpatient treatment with soft-adherent foam dressing with TLC-NOSF a healing accelerator technology (Lipido-Colloid Technology, TLC, with Nano-OligoSaccharide Factor, NOSF) was compared to the identical dressing without NOSF compound (neutral foam dressing). **METHODS:** A lifetime Markov model based on three states: "Patient with more than 6 months venous leg ulcer", "Patient with healing ulcer" and "Death". The healing process is represented by a law of Gompertz. The probability of recurrences is considered. Monte Carlo simulation of 1000 patients was applied to compare face to face the situations which were not experimentally tested. An intermediate endpoint of effectiveness was healing rate of ulcers during 8 weeks. A final health outcome was life-years gained without ulcers. We have estimated the direct costs associated with material costs, medical consultation and nursing care. This evaluation takes into account both health insurance and health care system perspectives in France. Clinical and economic outcomes were discounted at 4%. **RESULTS:** The number of life-years gained without ulcer is +5.8 (CI95%: [+5.5; +6.0]) years comparing with the dressing without NOSF. Additional QALY gain is 1.3 (CI95%: 1.2; 1.3). According to health care system perspective, the mean cost per patient at lifetime period is €2019,322 (CI95%: €8,725; €9,920) comparing with €18,352 (CI95%: €17,807; €18,897) using the dressing of reference. The probabilistic sensitivity analysis of 10,000 bootstrapping samples was performed comparing two strategies. The estimated probability shows 100% of acceptability of the treatment with TLC-NOSF technology. **CONCLUSIONS:** According to the base case hypotheses the innovational strategy TLC-NOSF is more effective and less costly than the reference dressing (neutral foam dressing).